

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:107
ANSWERED ON:20.02.2001
FORECASTING OF EARTHQUAKES
P.C. THOMAS;RAM SHAKAL

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether any meaningful study has been conducted in regard to the pattern of earthquakes in the country;
- (b) if so, the findings and details thereof;
- (c) whether any breakthrough has been achieved in the forecasting of earthquakes;
- (d) if so, the details thereof;
- (e) whether earthquakes in Gujarat and other parts of the country which took place recently were indicated earlier by any scientific exercise;
- (f) if so, the details thereof;
- (g) if not, the reasons therefor;
- (h) whether scientific reasons for each of these have been identified;
- (i) if so, the details thereof; and
- (j) the scientific approach being adopted to tackle the earthquakes?

Answer

MINISTER OF STATE FOR SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a) & (b): Sir, the study of the pattern of earthquakes is a part of the subject of seismology. Seismological research has been going on in the country for the last 100 years or so. Based on the past seismic history and geological information, the country has been divided into five seismic zones. The seismic zoning map of India is published by Bureau of Indian Standards. According to this, zones IV and V have been observed to experience earthquakes of moderate to severe intensity. Other parts of the country, falling in seismic zones I, II and III have experienced less seismic activity with slight to moderate intensity.

(c) & (d): Sir, no scientific technique is presently available anywhere in the world to forecast the occurrence of earthquakes with any reasonable degree of accuracy in space, time and magnitude.

(e), (f), (g), (h) & (i): As there is no scientific technique available presently anywhere in the world to forecast the earthquakes with reasonable degree of accuracy in space, time and magnitude, the earthquake in Gujarat could not have been indicated or predicted by any scientific exercise.

(j): There are different aspects of scientific study of earthquakes. IMD is the designated nodal agency for all surveillance and monitoring of earthquake activity through a national network of 57 seismological observatories. Scientific investigations of earthquakes are being done by a large number of academic institutes. The investigations helps us to improve the understanding of the mechanism of earthquake processes and mapping of the sub-surface geological features. Studies are also being conducted for micro-zonation and risk evaluation to enable better preparedness.